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Title

Evaluation of Ground Conductivity of Sub-Surface Irrigation Site Using Gem-2 Electromagnetic Survey Powder River Basin, Wyoming

Meso-scale structures of bidiperse mixtures of particles fluidized by a gas

Ni-Substituted Ba-Beta-Alumina Solid Oxide Catalysts: Structural and Performance Characteristics during CO2-CH4 Reforming

CO2 Cycloaddition to Propylene Oxide over Pt Nanoparticles Supported on Mg-Substituted Metal Organic Framework

Hydrogen Production in a Carbon-Constrained World: Structural and Performance Characteristics of Ni Substituted Hexaaluminate Reforming Catalysts

Catalytic partial oxidation of methane and isotopic oxygen exchange reactions over 180 labeled Rh/Gadolinium doped ceria

Hydrogen production by methane decomposition and catalytic partial oxidation of methane over Pt/CexGd1-xO2 and Pt/CexZr1-xO2ped ceria

CO2 electrochemical reduction via adsorbed halide anion

Photo-electrochemical reduction of CO2

Overall Energy Considerations for Algae Species Comparison and Selection in Algae-to-Fuels Processe Highly activated SOFC cathode by surface modification

Efficient theoretical screening of solid sorbents for CO2 capture applications

CO2 Dissociation and conversion using low-temperature plasma

Investigation of capacitance sensing of gasifier refractory health through modelling

Computational fluid dynamics modeling of a 650 MWe coal-fired boiler

Compaction of Titanium Powders

EFFECTS OF CERIA COATINGS ON MATERIALS PERFORMANCE OF 430 STEEL IN COAL SYNTHETIC GAS Chromia Evaporation in Advanced Ultra-Supercritical Steam Boilers and Turbines

New title: IGFC response to initial fuel cell load for various syngas compositions. Previously titled: Th impact of fuel composition on system response to the initial fuel cell load in a hybrid system Oxygen vacancies adjacent to CU2+ions in TiO2 (rutile) crystals

Optical studies of Au nanoparticles and Ag nanoparticles embedded ZnO thin films

Rapid Raman, on-line, gas analyzer for feed-forward/feedback control

An equivalent, flexible framework for linearized flame sheet model dynamics

Microstructural control of composite cathode by wetting nature of infiltrated solutions

Novel regenerable magnesium hydroxide sorbents for CO2 capture at warm gas temperatures Chemical looping combustion of coal-derived synthesis gas containing H2S over supported Fe2O3 -MnO2 oxygen carrier

Natural Materials for Carbon Capture

CO2 interaction with coals of different mineral and moisture content

Hydrocarbon formation from hydrogen-mediated versus direct CO dissociation on Fe (100) Using first-principles based kinetic Monte Carlo method to study the adsorption and reactivity properties of CO on Fe-based catalyst.

Impacts of sedimentation from oil and gas development on stream macroinvertebrates in two adjacer watersheds of the Allegheny National Forest of northwestern Pennsylvania

Solid-solid separation in a bubbling fluidized bed cold model

A Micro-Scale Model for Oxygen Reduction on LSM-YSZ Cathode

Physical and Chemical Characterization of coal Particles Used as Entrained Flow Gasifier Feedstock: Heterogeneity in Mineral Matter Distribution

Synthesis and Characterization of Mesoporous, High Specific Surface Area Srontium-doped Lanthanun Manganate using Evaporation -Induced Self-Assembly

Natural gas development and environmental issues on the Marcellus shale

Discrepancies in carbon dioxide sorption isotherms on coal under high-pressure conditions Process/equipment co-simulation for design and alalysis of advanced energy systems

A superstructure-based optimal synthesis of PSA cycles for post-combustion CO2 capture Steady-state simulation and optimization of an integrated gasification combined cycle power plant with CO2 capture

Density Functional Theory Study of Pyrophyllite and M-Montmorillonites (M + Li+, Na+, K+, Mg2+, Ca2+): Role of dispersion interactions

Two-Phase Flow in a Rough Fracture: Experiment and Modeling

Coagulation/Flocculation Treatments for Flue-Gas Derived Water from Oxy-Fuel Power-Production with CO2-Capture

Preliminary effects of Marcellus shale drilling on Louisiana waterthrush in West Virginia

Molecular Simulations and Theoretical Predictions for Adsorption and Diffusion of CH4/H2 and CO2/CH Mixtures in ZIFs

Determination of Free Fatty Acids in Biological Oils by A Selective Esterification Method Hydrogen Selective Thin Palladium-Copper Composite Membranes on Alumina Supports Supported Room Temperature Ionic Liquid Membranes for CO2/CH4 Separation CO2 Interaction with Geomaterials

Lesson Learned from Circulating Fluidized Bed Challenge Problem: Comparison of Simulations and Experimental Test Results

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On the Relation Between Oxide Ridge Evolution and Alloy; Surface Grain Boundary Disorientation in Fe-22 wt % Cr Alloys

The Microstructural Evolution of Inconel Alloy 740; During Solution Treatment, Aging,; and Exposure a

Exploration of alloy 441 chemistry for solid oxide fuel cell interconnect; application

Homogenizing a Nickel-Based Superalloy: Thermodynamic; and Kinetic Simulation and Experimental Results

Effect of particle size on the activation energy and ignition temperature of metallic nanoparticles Trace Species Partitioning as Affected by Dry (Cold) Gas Cleanup Conditions: A Thermodynamic Analysis

Structurally Modulated Precipitates in a Refractory Cr-V Alloy

Effect of Al on High-Temperature Oxidation of Cr-W Alloys

Arc Distribution During the Vacuum Arc Remelting of Ti-6A1-4V; Mettallurgical and Materials Transaction B

Oxy-Burner Retrofit Principles for Existing Coal-fired Utility Boilers; IEAGHG special oxy-fuel publication Use of various rock physics models to better characterize velocity dispersion effects in carbon sequestration reservoirs

The Orientation of Distributions of Lines, Surfaces, and Interfaces around Three-Phase Boundaries in Solid Oxide Fuel Cell Cathodes

Modeling of a steam turbine including partial arc admission for use in a process simulation software environment. PREVIOUS TITLE: Modeling a large fossil fuel steam turbine for use in a process simulation software environment

Crossover from fractal viscous fingering to compact invasion for drainage: modeling and experiment Photo-Oxidation of Low-Volatility Organics found in Motor Vehicle Emissions: Production and Chemical Evolution of Organic Aerosol Mass, :

Effective Rate Constants and Uptake Coefficients for the Reactions of Organic Molecular Markers (n-Alkanes, Hopanes and Steranes) in Motor Oil and Diesel Primary Organic Aersols with Hydroxyl Radicals" Lambe, A., Miracolo, M, Hennigan, C., Robinson, A., Donahue, N. 640 - Environmental Science Science & Technology, 43(23), 8752-8758, 2009. Geological & Environmental Science

TPR-3485 Constraining the Volatility Distribution and Gas-Particle Partitioning of Combustion Aerosols Using Isothermal Dilution and Thermodenuder Measurements"

"Intermediate-Volatility Organic Compounds: A Potential Source of Ambient Oxidized Organic Aerosol' Combination of temperature program reduction and X-ray photoelectron spectroscopy for identification of active species on catalyst surfaces

Optical Thin Films for Gas Sensing in Advanced Coal Fired Power Plants

Computational Investigation of FeS2 Surfaces and Prediction of Effects of Sulfur Environment on Stabilities

First-principles studies of H2S adsorption and dissociation on metal surfaces

New Natural Gas Storage and Transportation Capabilities Utilizing Rapid Methane Hydrate Formation Techniques

Rapid Gas Hydrate Formation Processes: Will They Work?

Performance and Degradation in Fuel Cells

Density Functional Theory: A Practical Introduction (Book)

Carbon Management for Existing Power Plants via Measurement Control Optimization

A hyperbolic model for fluid-solids two-phase flow

Optimal design and integration of an Air Separation Unit (ASU) for an Integrated Gasifiction Combined Cycle (IGCC) power plant with CO2 capture

Partitioning of a perfluorocarbon tracer (PFT) between gas-phase carbon dioxide and geologic Mediaa

Simulations of Pressure Monitoring above a Fractures Caprock at a Brine CO2 Sequestration Site Force Field Parameter Estimation of Functional Perfluoropolyether Lubricants

Ionic Liquids and CO2: Insight from Ab Initio Calculations on Dimers

CO2 Reduction via Chemical Looping Dry Reforming

Advanced process and dynamic systems R&D for energy and the environment

Efficient Way to Identify Good Solid Sorbents for CO2 Separation

A load-based depth-sensing indentation technique for elastic-plastic material mechanical property evaluation: Numerical and experimental investigation

Material performance of TBC systems at high temperature in moisture rich environments using a load based micro-indentation technique

Effect of Temperature Gradient on Industrial Coal Slag Infiltration into Porous Refractory Materials in Slagging Gasifiers

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Evolution of rheological properties of the nanofluids composed of laponite particles and Mg-Fe layered double hydroxide nanosheets

Crystal Defects of Yttria-Stabilized Zirconia in Solid Oxide Fuel Cells and their Microstructural Evolutio

upon Cell Operation

Microstructural and chemical evolution near anode triple phase boundary in Ni/YSZ solid oxide fuel

cells

Latest developments in seismic texture analysis for subsurface structure, facies, and reservoir characterization: A review

Ultrathin Palladium Membranes Prepared by a Novel Electric Field Assisted Activation

Utilization of Multiple Waste Streams for Acid Gas Sequestration and Multi-Pollutant Control Municipal waste water utilization in power plant cooling system

Comparative investigation on chemical looping combustion of coal-derived synthesis gas containing H2S over supported Fe2O3 - MnO2 oxygen carrier

Size-dependent Photocatalytic Reduction of CO2 with PbS Quantum Dot Sensitized TiO2 Heterostructured Photocatalysts

Advances in Geological CO2 Sequestration and Co-sequestration

A multiple partial unloading indentation technique for elastic-plastic mechanical property evaluation: Numerical and experimental investigation

TBC system performance in simulated land-based gas turbine environments using a load-based micro indentation technique

Electron-induced CO2 Spllitting on TiO2(110)

Investigation of mechanical and transport properties of hollow fibers containing ionic liquids for gas separation applications

Mechanical Property Evaluation of Torrefied Biomass Materials with Correlation to Grinding Efficiency

Depositional Model of the Marcellus Shale in West Virginia Based on Facies Analysis

Experimental measurements and equation of state modeling of liquid densities for long-changing alkanes at pressures to 265 MPa and temperatures to 250 degrees C

An improved method to increase the predictive accuracy of the ECR technique

Water Gas Shift Catalysis over nanostructured Au-CeO2: Investigation of Support Morphology and Go Concentration

Effect of biomass blending on oxyfuel coal combustion

Subsurface Drip Irrigation as a Method to Beneficially Use Coalbed Methane Produced Water: Initial Impacts to Groundwater, Soil Water, and Surface Water

Numerical Simulations of Depressurization-induced Gas Production from the Gulf of Mexico, the Blue and Orange Waler Ridge 313 Hydrate Deposits Using 2D and 3D Reservoir Models

Natural gas development and environmental issues on the Marcellus Shale

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X-ray computed tomography observations of preferential modes of gas migration in saturated sediment samples

Effect of hydrophobic surfaces on the kinetics of hydrate formation

The role of acid-base interaction in the formation of CO2 hydrate

Quantitative applications of x-ray CT observations for core-scale hydrate studies

3D seismic volume curvature and flexure for unconventional fractured reservoir characterization, Teapot Dome (Wyoming)

Crystallization temperatures of cyclohexane, cyclohexane, cyclooctane, n-hexadecane, n-octadecane, and n-eicosane at high pressures

Using derivative-free algorithms to identify surrogate models of energy systems

Validation studies on fikitered model equations for gas-particle flows in risers

Solid CO2-philes as Potential Physical Solvents for CO2

Prediction of emissions and performance of a 650 MW coal-fired boiler using CFD

Minimization of water consumption under uncertainity for a pulverized coal power plant

Determining CO2 concentrations in natural waters: A review of common methods and their limitation Coal Fracture Roughness Changes with Desiccation

Optomization of Operating Parameters for Minimum Mechanical specific Energy in Drilling Revisiting Johnson and Jackson boundary conditions for granular flows Theoretical studies of carbon dioxide intercalation in clay minerals

Modeling of Thermoelastic Stresses using Fast Fourier Transforms

ADSORPTION OF CO2 IN A SPIN-CROSSOVER METAL COORDINATION POLYMER

NOVEL POROUS CARBON NANOTUBE MEMBRANES FOR SEPARATION OF CH4/CO2 AND CH4/H2 **MIXTURES**

FIRST PRINCIPLES AND CLASSICAL SIMULATIONS OF IONIC LIQUIDS FOR CARBON DIOXIDE CAPTURE

FIRST PRINCIPLES AND CLASSICAL SIMULATIONS OF IONIC LIQUIDS FOR CARBON DIOXIDE CAPTURE Phase-field Modeling of SOFC Cathode Microstructures

Deep Drilling Improvements: Optimization Method for Minimizing Mechanical Specific Energy in Rock Drilling

Oxygen transport investigation on infiltrated SOFC cathode

Acceleration techniques for reduced-order models based on proper orthogonal decomposition Augmented proper orthogonal decomposition for problems with moving discontinuties Nobel Gases on Metal Surfaces: New Insights on Adsorption Site Preference

Computational fluid dynamic simulations of chemical looping fuel reactors utilizing gaseous fuels

Strontium Isotope Study of Coal Utilization Byproducts Interacting with Environmental Waters

Comparative investigation on chemical looping combustion of coal-derived synthesis gas containing H2S over supported NiO oxygen carriers

Phase-field modeling of three-phase SOFC electrode microstructures

Modeling of CBM Production, CO2 Injection, and Tracer Movement at a field site

The Influence of Superalloy Substrate on the Behavior of; High-Purity Low-Density APS Thermal Barric Coatings;

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Effects of reactive elements in liquid Cr2O3: an ab initio molecular dynamics study

Open Source NFIX-DEM software for gas-solids flows: Part II - validation studies"

Thermal Stability Study of the Bridging CO2 Complex, [tBu3P-(m-CO2)-B(C6F5)3]

Product Distributions from Isothermal Co-pyrolysis of Coal and Biomass

Localized corrosion and fatigue behavior of ultra deep drilling alloys

Open Source NFIX-DEM softward for gas-solids flows: Part 1 - verification studies

Fabrication of self-assembled and organized nanoparticles by spinodal dewetting: A high-throughput approach

Ammonia Stripping in Open-Recirculating Cooling Water Systems

Optimization of Drilling Parameters for Minimum Mechanical Specific Energy

Performance of Tripod Antivortex Injection Holes on Vane Suction Side Film Cooling

Thermo-Mechanical Analysis of Tripod Film-Cooling Injection Holes

Reversible Ageing Behavior of LSM electrodes at Open Circuit

Microstructure And Chemistry Of Ni/YSZ Anode For Cells Operated In H2, Syngas And Syngas Containing PH3

Performance of Tripod Antivortex Injection Holes on Vane Pressure Side Film Cooling

Heat Transfer Distribution of V and Chevron Rib Geometries for Developing Flow at High Rotation Numbers

Implications of subseismic-scale texture for seismic amplitude interpretation: Waveform synthetic modeling for reservoir and fracture analysis

Diffusion of CO2 on Rutile TiO2(110)

An Electronic Structure Based Understanding of Amine-Carbon Dioxide Interactions for CO2

CaptureASPEN Simulation of Various Amines for CO2 capture

Reversible Ageing Behavior of LSM electrodes at Open Circuit

Thermomechanical Behavior of SOFC Materials

CO2-soluble, Non-ionic, Water-soluble Surfactants that Stabilize CO2-in-Brine Foams

"The Effect of Processing Variables on the Durability of High-Purity YSZ-TBCs Prepared by APS" Review on Mechanisms of Gas Permeation through Inorganic Membranes

Variable Temperature NMR Studies of CO2 and PtBu3

Load-following control of an IGCC plant with CO2 capture

Steady-State Modeling of a Single-Stage, Downward-Firing, Entrained-Flow Gasifier

Detailed well log and seismic interpretation of the Fruitland Formation: San Juan Basin carbon sequestration pilot site

Non-Destructive Thermal Barrier Coatings Spallation Prediction by a Load-Based Micro-Indentation Technique

Mixed lanthana/ceria nanorod-supported gold catalysts for water-gas-shift

Intermediate-Temperature Solid Oxide Fuel Cell with Electrospun Nanofiber Cathode

Wireless Harsh-Environment Oxygen Sensors

Environmental Controls of cadmium desorption during CO2 leakage

Oscillations in methane availability at southern Hydrate Ridge over the past 120 ky, I: Methane-induced diagenesis inferred from foraminifera and sediment records

Calibration of XRF Core Scanners Analysis with Special Focus on Sedimentary Ca, Ba, and S Contents.

Development of Advanced gasification Kinetics Models for CFD (and process simulation) Codes Langasite Surface Acoustic Wave Sensors: Fabrication and Testing

Evaluation of Iron Based Oxygen Carriers for Chemical Looping Dry Reforming

Cartesian grid simulations of bubbling fluidized beds with a horizontal tube bundle

Low-Power Membrane Capacitive Deionization Using Microbial Fuel Cells

Micro-CT applications to Seismic Monitoring of EOR and Carbon Seguestration sites.

UsHelicopter based magnetic detection of wells at the teapot dome (Naval Petroleum Reserve No. 3) oilfield: Rapid and accurate geophysical algorithms for locating wells.

Spectrometer-less Raman detection using rotatin tunable bandpass filters.

Angular throughput of hollow, metal-lined, waveguide Raman sensors.

MINERALOGICAL ANALYSIS OF COAL CHARS OBTAINED BY HIGH TEMPERATURE GASIFICATION OF GRAVITY AND SIZE SEPARATED FRACTIONS OF A HIGH VOLATILE BITUMINOUS COAL

Density Prediction of Hydrocarbons at Extreme Conditions using Volume-translated SRK and PR Equations of State Fit to High Temperature, High Pressure PVT Data

Prediction of Fluid Densities at Extreme Conditions Using the Perturbed-Chain SAFT Equation Correlated to High Temperature, High Pressure Density Data

Transported PDF modeling of nonpremixed turbulent CO/H2/N2 jet flames

A FEM approach to measure Skemton's B coefficient for supercritical CO2 saturated rock

A Computational Study on the Influence of Exhaust Gas Recirculation on NOx Emissions for a Swirl Combustor Using Steady and Tim

"Adsorption and elctron-induced Dissociation of CO2 on Tio2(110)"

A Technical and Economic Assessment of Ammonia-Based Post Combustion CO2 Capture at Coal-Fired Power Plants

Influence of a caprock fracture on pressure response and ground movements caused by CO2 Injection "INFLUENCE OF TIME AND OXYGEN PARTIAL PRESSURE ON SYNTHETIC COAL SLAG INFILTRATION INTO ALUMINA REFRACTORY"

Using a high temperature, high pressure Couette viscometer to assess Krytox® oils as a deepwater HTHP viscosity standard

Oxygen-induced Y surface segregation in a CuPdY ternary alloy

Rigorous kinetic modeling, optimization, and operability studies of a modified Claus unit for an integrated gasification combined cycle (IGCC) power plant with CO2 capture

Supported Room Temperature Ionic Liquid Membranes for CO2/CH4 Separation

Investigation of Oxidation-Induced Phase Transformation and Microstructures of Inconel 939 in Oxy-fu Combustion

High-throughput characterization of sulfur poisoning of Pd alloy hydrogen separation membr

3D seismic volume curvature and curvature gradient for fractured reservoir characterization at Teapol Dome (Wyoming)

Thermomechanical Behavior of Solid Oxide Fuel Cells

CO Hydrogenation over Rh-based Pyrochlore Catalysts for Higher Alcohols Synthesis

Effects of measurement materials and oxygen partial pressure on measurements of synthetic coal sla viscosity

Geochemical and Strontium Isotope Characterization of Produced Waters from Marcellus Shale Natura Gas Extraction

Determination of free CO2 in emergent groundwaters using a commercial beverage carbonation meter

Synthesis and Morphology Control of Carbon Nanotube/Polyaniline Composite for Chemical Sensing

Organization	Focus Area
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 620 - Energy Systems Dynamics 660 - Chemistry Surfaces Science 620 - Energy Systems Dynamics 620 - Energy Systems Dynamics 600 - Office of Research & Development 	Materials Science Materials Science Materials Science Energy System Dynamics Geological & Environmental Science
605 - Earth and Mineral Sciences	Geological & Environmental Science
605 - Earth and Mineral Sciences	Geological & Environmental Science
670 - Computational Science 620 - Energy Systems Dynamics 690 - Process Development 670 - Computational Science 640 - Environmental Science 600 - Office of Research & Development	Computational & Basic Science Energy System Dynamics Materials Science Computational & Basic Science Geological & Environmental Science Geological & Environmental Science
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670 - Computational Science	Computational & Basic Science
605 - Earth and Mineral Sciences	Geological & Environmental Science
605 - Earth and Mineral Sciences	Geological & Environmental Science
600 - Office of Research & Development	Geological & Environmental Science
620 - Energy Systems Dynamics 660 - Chemistry Surfaces Science	Energy System Dynamics Materials Science
670 - Computational Science	Computational & Basic Science

600 - Office of Research & Development	Geological & Environmental Science
680 - Materials Performance	Materials Science
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620 - Energy Systems Dynamics	Materials Science
640 - Environmental Science	Geological & Environmental Science
600 - Office of Research & Development	Geological & Environmental Science
620 - Energy Systems Dynamics	Materials Science